

STIC-Biotech/ChemLib

59563

From: Kerr, Kathleen  
Sent: Saturday, February 02, 2002 11:20 AM  
To: STIC-Biotech/ChemLib  
Subject: Sequence Search Request 09/449817

For: Kathleen Kerr  
Employee #77468  
Mail Box 10C01  
Art Unit 1652  
Rm 10B13, CM1  
305-1229

In Application No. 09/449,817 in *commercial* and *issued* databases:

Please search SEQ ID Nos: 1, 3 against nucleic acid databases.

Please do an oligomer search of SEQ ID Nos: 1, 3 against nucleic acid databases.

Please search SEQ ID Nos: 2, 4 (amino acid seqs) against nucleic acid databases.

Please search SEQ ID Nos: 1, 3 against 09449817.seq (nucleics in its own file).

Please search SEQ ID Nos: 1, 3 against 09449817.pep (proteins in its own file).

Please call with any questions

Please save results on \*\*\**diskettes*\*\*\*

Thank you very much.

*Kathleen Kerr*

Kathleen Kerr, Ph.D.  
Patent Examiner  
Recombinant Enzymes, Art Unit 1652  
United States Patent and Trademark Office  
Arlington, VA  
(703) 305-1229 (Desk)  
(703) 746-5205 (Fax)  
(703) 308-1235 (Receptionist)

Point of Contact:  
Toby Port  
Technical Info. Specialist  
CM1 1E01 TEL: 308-3534

6A04

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TYPE OF SEARCH:		VENDOR/COST(where applic.)
Searcher: _____	NA Sequences: <u>10</u>	STN: _____
Phone: _____	AA Sequences: _____	DIALOG: _____
Location: _____	Structures: _____	Questel/Orbit: <u>1</u>
Date Picked Up: <u>2/7</u>	Bibliographic: _____	DRLink: _____
Date Completed: <u>2/7</u>	Litigation: _____	Lexis/Nexis: _____
Searcher Prep/Review: <u>20</u>	Full text: _____	Sequence Sys.: <u>cg</u>
Clerical: _____	Patent Family: _____	WWW/Internet: _____
Online time: <u>20</u>	Other: _____	Other (specify): _____

LOCUS	A63553	1203 bp	DNA	PAT	12-MAR-1998
DEFINITION	Sequence 6 from Patent WO9722695.				
ACCESSION	A63553				
VERSION	A63553.1 GI:3717208				
SOURCE	unidentified.				
ORGANISM	unidentified				
	unclassified.				
REFERENCE	1 (bases 1 to 1203)				
AUTHORS	Talerman,A., Amson,R. and Cohen,D.				
TITLE	NUCLEOTIDE SEQUENCES, PROTEINS, DRUGS AND DIAGNOSTIC AGENTS FOR TREATING CANCER				
JOURNAL	Patent: WO 9722695-A 6 26-JUN-1997; FONDATION JEAN DAUSSET CEPH (FR)				
COMMENT	Other publication FR 2747691 19971024				

Query Match 39.4%; Score 289; DB 6; Length 1203;  
Best Local Similarity 71.8%; Pred. No. 1.6e-55;  
Matches 469; Conservative 1; Mismatches 156; Indels 27; Gaps 6;

Qy	1	tacgacttgggtcaacctggcgagtcgaagcaggtcttggccaacaagagccacctctgggtg	60
Db	663	TACGACCTGGTCAATCTGGCTGTGAAGCAGGTCTTGGCCAACAAGAGCCGCCTCTGGGCT	604
Qy	61	gaggaggaggtctggcggtatggagatctacctctccctgggagtgctggccctcgggcag	120
Db	603	GAGGAAGAAGTCTGGAGGATGGAGATATACCTGTCCCTGGGTGTGCTGGCCCTGGGCATG	544
Qy	121	ttgtccctgctggccgtgacctcactgcccgtccattgcaaactcgctcaactggagggag	180
Db	543	TTGTGCTGCTGGCTGTACCTCGCTCCCGTCCATTGCTAATTCCCTCAACTGGAAGGAG	484
Qy	181	ttcagcttcgttcagtcctcactgggctttgtggccctcgctgctgagcacactgcacacg	240
Db	483	TTCAGCTTCGTGCAGTCCACACTGGGCTTCGTGGCCCTGATACTCAGCACAAATGCACACA	424
Qy	241	ctcacctacggtgtagcccgcgccct-----cgaagagaccgctacaagttctacctgcc	295
		:	
Db	423	CTCACCTACGGCTGGACCCGTGCCTTTTGNAGGAAAAACCACTAMCAAGTTCTACCTGCC	364
Qy	296	tcccac---cttcacgctcacgctgctggtgccctgcgt---cgtcacctggccaaagc	349
Db	363	CGCCCCACATTCCACACTCACGCTGCTCCCTGCCCTGTGTGAATCATCTGGCCAAGGG	304
Qy	350	cctgtttctcctgccctgcatc-agccgcagactccccaggatccggagaagctgggaga	408
Db	303	CCTCTTCTCTCTGCCCTGCCTCAAACCGCAGACTCACCAAGATCCGCAGGGGCTGGGAGA	244
Qy	409	gggagagcaccatcaagttcacgctgccacagaccacgccctggccgagaagacgagcc	468
Db	243	AAGATGGGGCTGTCAAGTTCATGCTGTCCGGCGACCACACACAGGGGGAGAAAACAAGCC	184
Qy	469	acgtatgaggtgcctgcccctgggctctggaccccgggcacacgagggacggtgccctgag	528
Db	183	ACGTGTGAGGCCCTGGAAGTGGAGATGGCTTGTGGGGGCCCTGAG-----C	138

Qy 529 cccgtagggttttcttttcttggtggtgcaaagtggtataactgtgtgcaaataggaggt 588  
||| || | ||||| | || ||| || | | | | ||| ||  
Db 137 TGGGTTCTGGGTCTCTTTCTGGATGCTGCACAGCGAGGTGATGATATATGCGTGGGTGG- 77

Qy 589 ttgaggtccaaattcctgggactcaaatgtatgcatgactattcagaatgata 641  
|||| ||| ||||| || || ||| | || ||||| ||| |  
Db 78 CTGAGATCCTAATTCCTGGGATGCAGGTGTAACTGACATACTCAGAATGACA 26

to Applicant

2. US-09-449-817A-1 (1-733)

US-09-449-817A-3 Sequence 3, Application US/09449817A

Sequence 3, Application US/09449817A

GENERAL INFORMATION:

APPLICANT: Genotherapeutics Inc.

APPLICANT: Steiner, Mitchell

APPLICANT: Rinaldi, Augustine

APPLICANT: Menon, Rema

TITLE OF INVENTION: An isolated nucleic acid encoding P-HYDE protein and methods of inducing

TITLE OF INVENTION: susceptibility to induction of cell death in cancer

FILE REFERENCE: P-2762-US1

CURRENT APPLICATION NUMBER: US/09/449,817A

CURRENT FILING DATE: 2001-08-16

PRIOR APPLICATION NUMBER: US 09/302,457

PRIOR FILING DATE: 1999-04-29

NUMBER OF SEQ ID NOS: 6

SOFTWARE: PatentIn version 3.0

SEQ ID NO 3

LENGTH: 1467

TYPE: DNA

ORGANISM: Rat

Initial Score = 353 Optimized Score = 396 Significance = -0.08  
Residue Identity = 84% Matches = 401 Mismatches = 75  
Gaps = 1 Conservative Substitutions = 0

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                                     || || |||||
TGCTGCACGCTCTCTACAGCTTCTGCCTGCCGCTGCGCCGCTCCCACCGCTATGATCTGGTCAACCTGGCTG
      950      960      970      980      990      1000      1010

      30      40      50      60      70      80      90
TCAAGCAGGTCTTGGCCAACAAGAGCCACCTCTGGGTGGAGGAGGAGGTCTGGCGGATGGAGATCTACCTCT
| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
TGAAGCAGGTCTTGGCCAACAAGAGCCGCCTCTGGGTGAGGAAGAAGTCTGGCGGATGGAGATATACCTGT
      1020      1030      1040      1050      1060      1070      1080

      100      110      120      130      140      150      160
CCCTGGGAGTGCTGGCCCTCGGCACGTTGTCCCTGCTGGCCGTGACCTCACTGCCGTCCATTGCAAACCTCGC
||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
CCCTGGGTGTGCTGGCTCTGGGCATGCTGTCACTGCTGGCGGTTACCTCGATCCCTTCCATTGCAAACCTCAC
      1090      1100      1110      1120      1130      1140      1150

      170      180      190      200      210      220      230
TCAACTGGAGGGAGTTCAGCTTCGTTTCAGTCCCTCACTGGGCTTTGTGGCCCTCGTGCTGAGCACACTGCACA
||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
TCAACTGGAAGGAGTTCAGCTTTGTGCAGTCCACGCTGGGCTTCGTGGCCCTGATGCTGAGCACAAATGCACA
      1160      1170      1180      1190      1200      1210      1220

      240      250      260      270      280      290      300
CGCTCACCTACGGCTGGACCCGCGCCTTCGAAG-AGACCGCTACAAGTTCTACCTGCCTCCACCTTCACGC
| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
CCCTCACCTACGGCTGGACCCGTGCTTTTGAGGAAAACCACTACAAGTTCTACCTGCCACCCACATTCACGC
      1230      1240      1250      1260      1270      1280      1290      1300
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310            320            330            340            350            360            370            380  
 TCACGCTGCTGGTGGCCCTGCGTCGTCATCCTGGCCAAAGCCCTGTTTCTCCTGCCCTGCATCAGCCGCAGAC  
 |||||    |||||    ||    |||||    |||||    ||    ||    ||    |||||    |||||    |||||  
 TCACGCTGCTCCTGCCCTGTGTATCATCCTGGCCAAGGGCCTCTTCCTCCTGCCCTGCCTCAGCCACAGAC  
           1310            1320            1330            1340            1350            1360            1370  
  
           390            400            410            420            430            440            450  
 TCCCCAGGATCCGGAGAAGCTGGGAGAGGGAGAGCACCATCAAGTTCACGCTGCCCACAGACCACGCCCTGG  
 ||    ||    |||||    ||    |||||    |||||    ||    ||    |||||    |||||    ||    ||    ||  
 TCACCAAGATCCGCAGGGGCTGGGAGAGGGATGGTGCCGTCAAGTTCATGCTGCCCCTGGCCACACACAGG  
           1380            1390            1400            1410            1420            1430            1440  
  
           460            470            X 480            490            500            510            520  
 CCGAGAAGACGAGCCACGTATGAGGTGCCTGCCCTGGGCTCTGGACCCCGGGCACACGAGGGACGGTGCCCT  
           |||||    ||    |||||    |||||  
 GGGAGAAAACAAGCCACGTGTGA  
           1450            1460            X

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
15 March 2001 (15.03.2001)

PCT

(10) International Publication Number  
**WO 01/18022 A1**

(51) International Patent Classification<sup>7</sup>: **C07H 21/04**,  
21/02, C07K 5/00, 14/00, C12Q 1/68, C12N 1/12, 15/63,  
15/85, 15/86

(21) International Application Number: PCT/US00/24008

(22) International Filing Date: 31 August 2000 (31.08.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/152,317 3 September 1999 (03.09.1999) US  
60/152,315 3 September 1999 (03.09.1999) US

(71) Applicant (for all designated States except US): **HUMAN GENOME SCIENCES, INC.** [US/US]; 9410 Key West Avenue, Rockville, MD 20850 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **NI, Jian** [CN/US]; 5502 Manorfield Road, Rockville, MD 20853 (US). **BAKER, Kevin, P.** [GB/US]; 14006 Indian Run Drive, Darnestown, MD 20878 (US). **BIRSE, Charles, E.** [GB/US]; 13822 Saddleview Drive, North Potomac, MD 20878 (US). **FISCELLA, Michele** [US/US]; 6308 Redwing Road, Bethesda, MD 20817 (US). **KOMAT-SOULIS, George, A.** [US/US]; 9518 Garwood Street, Silver Spring, MD 20901 (US). **ROSEN, Craig, A.** [US/US]; 22400 Rolling Hill Road, Laytonsville, MD 20882 (US). **SOPPET, Daniel, R.** [US/US]; 15050 Stillfield Place, Centreville, MD 22020 (US). **YOUNG, Paul, E.** [US/US]; 122 Beckwith Street, Gaithersburg, MD 20878 (US). **EBNER, Reinhard** [DE/US]; 9906 Shelburne Terrace, #316, Gaithersburg, MD 20878 (US). **DUAN, D., Roxanne** [US/US]; 5515 Northfield Road, Bethesda, MD 20817 (US). **OLSEN, Henrik, S.** [DK/US]; 182 Kendrick Place, #24, Gaithersburg, MD 20878 (US).

**LAFLEUR, David, W.** [US/US]; 3142 Quesada Street, N.W., Washington, DC 20015 (US). **MOORE, Paul, A.** [GB/US]; 19005 Leatherbark Drive, Germantown, MD 20874 (US). **SHI, Yanggu** [US/US]; Apt. 102, 437 West Side Drive, Gaithersburg, MD 20878 (US). **WEI, Ying-Fei** [CN/US]; 242 Gravatt Drive, Berkeley, CA 94705 (US). **FLORENCE, Kimberly, A.** [US/US]; 12805 Atlantic Avenue, Rockville, MD 20851 (US).

(74) Agents: **HOOVER, Kenley, K.** et al.; c/o Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD 20850 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.
- With (an) indication(s) in relation to deposited biological material furnished under Rule 13bis separately from the description.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: 52 HUMAN SECRETED PROTEINS

(57) Abstract: The present invention relates to novel human secreted proteins and isolated nucleic acids containing the coding regions of the genes encoding such proteins. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating diseases, disorders, and/or conditions related to these novel human secreted proteins.

WO 01/18022 A1

ID AAF91864 standard; cDNA; 1038 BP.  
 XX  
 DT 22-MAY-2001 (first entry)  
 XX  
 DE Human secreted protein-encoding gene 7 cDNA clone HLQEM64, SEQ ID NO:17.  
 XX  
 OS Homo sapiens.  
 XX  
 PN WO200118022-A1.  
 PD 15-MAR-2001.  
 PF 31-AUG-2000; 2000WO-US24008.  
 PR 03-SEP-1999; 99US-0152315.  
 PR 03-SEP-1999; 99US-0152317.  
 XX  
 PA (HUMA-) HUMAN GENOME SCI INC.  
 XX  
 PI Ni J, Baker KP, Birse CE, Fiscella M, Komatsoulis GA, Rosen CA;  
 PI Soppet DR, Young PE, Ebner R, Duan DR, Olsen HS, Lafleur DW;  
 PI Moore PA, Shi Y, Wei Y, Florence KA;  
 XX  
 PT Nucleic acid molecules encoding human secreted proteins, used in  
 PT preventing, treating or ameliorating a disorder, e.g. Alzheimer's and  
 PT Parkinson's diseases and cancers -

SQ Sequence 1038 BP; 224 A; 289 C; 279 G; 242 T; 4 other;

Query Match 90.4%; Score 662.6; DB 22; Length 1038;  
 Best Local Similarity 99.0%; Pred. No. 1.3e-156;  
 Matches 676; Conservative 1; Mismatches 5; Indels 1; Gaps 1;

Qy	39	caacaagagccacctctgggtggaggagggtctggcggatggagatctacctctccct	98
Db	2	caacaagagccacctctgggtgraggaggagggtctggcggatggagatctacctctccct	61
Qy	99	gggagtgtgtggccctcggcacgttgctccctgctggccgtgacctcactgccgtccattgc	158
Db	62	gggagtgtgtggccctcggcacgttgctccctgctggccgtgacctcactgccgtccattgc	121
Qy	159	aaactcgctcaactggaggaggagttcagcttcggttcagtcctcactgggctttgtggccct	218
Db	122	aaactcgctcaactggaggaggagttcagcttcggttcagtcctcactgggctttgtggccct	181
Qy	219	cgtgctgagcacactgcacacgctcacctacggctggacccgcgccttcgaagaga-ccg	277
Db	182	cgtgctgagcacactgcacacgctcacctacggctggacccgcgccttcgaggagagccg	241
Qy	278	ctacaagttctacctgcctccaccttcacgctcacgctgctgggtgccctgcgtcgtcat	337
Db	242	ctacaagttctacctgcctccaccttcacgctcacgctgctgggtgccctgcgtcgtcat	301
Qy	338	cctggccaaagccctgtttctcctgcctgcatcagccgcagactccccaggatccggag	397
Db	302	cctggccaaagccctgtttctcctgcctgcatcagccgcagactcgccaggatccggag	361
Qy	398	aagctgggagagggagagcaccatcaagttcacgctgcccacagaccacgccttgccga	457
Db	362	aggctgggagagggagagcaccatcaagttcacgctgcccacagaccacgccttgccga	421

Qy	458	gaagacgagccacgtatgaggtgcctgccctgggctctggacccccgggcacacgagggac	517
Db	422	gaagacgagccacgtatgaggtgcctgccctgggctctggacccccgggcacacgagggac	481
Qy	518	ggtgccctgagcccgtaggttttcttttcttgggtggtgcaaagtgggtataactgtgtgc	577
Db	482	ggtgccctgagcccgtaggttttcttttcttgggtggtgcaaagtgggtataactgtgtgc	541
Qy	578	aaataggaggtttgaggtccaaattcctgggactcaaatgtatgcatgactattcagaat	637
Db	542	aaataggaggtttgaggtccaaattcctgggactcaaatgtatgcagtactattcagaat	601
Qy	638	gatatacacacatatgtgtatatgtattttacatatattccacatatataacaggatttgc	697
Db	602	gatatacacacatatgtgtatatgtattttacatatattccacatatataacaggatttgc	661
Qy	698	aattatacatagctagctaaaaa	720
Db	662	aattatacatagctagctaaaaa	684



PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>C07H 21/04, C07K 14/705, C12N 15/09, 15/63, C12Q 1/68</b>		<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 00/11015</b>
			<b>(43) International Publication Date:</b> 2 March 2000 (02.03.00)
<b>(21) International Application Number:</b> PCT/US99/19351			<b>(74) Agent:</b> SPRUNGER, Suzanne, A.; American Home Products Corporation, Patent & Trademark Dept. - 2B, One Campus Drive, Parsippany, NJ 07054 (US).
<b>(22) International Filing Date:</b> 24 August 1999 (24.08.99)			
<b>(30) Priority Data:</b>			
60/097,638 24 August 1998 (24.08.98) US			
60/097,659 24 August 1998 (24.08.98) US			
60/099,618 9 September 1998 (09.09.98) US			<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
60/102,092 28 September 1998 (28.09.98) US			
60/109,978 25 November 1998 (25.11.98) US			
60/113,645 23 December 1998 (23.12.98) US			
60/113,646 23 December 1998 (23.12.98) US			
09/379,246 23 August 1999 (23.08.99) US			
<b>(71) Applicant:</b> ALPHAGENE, INC. [US/US]; 260 West Cummings Park, Woburn, MA 01801 (US).			
<b>(72) Inventors:</b> VALENZUELA, Dario; 260 West Cummings Park, Woburn, MA 01801 (US). YUAN, Olive; 260 West Cummings Park, Woburn, MA 01801 (US). HOFFMAN, Heidi; 260 West Cummings Park, Woburn, MA 01801 (US). HALL, Jeff; 260 West Cummings Park, Woburn, MA 01801 (US). RAPIEJKO, Peter; 260 West Cummings Park, Woburn, MA 01801 (US).			
<b>(54) Title:</b> SECRETED PROTEINS AND POLYNUCLEOTIDES ENCODING THEM			
<b>(57) Abstract</b>			
Novel polynucleotides and the proteins encoded thereby are disclosed.			

ID AAA23459 standard; cDNA; 3098 BP.  
 XX  
 DT 19-JUN-2000 (first entry) w  
 XX  
 DE cDNA encoding human secreted protein vp17\_1, SEQ ID NO:73. v  
 XX  
 OS Homo sapiens.  
 XX  
 PN WO200011015-A1.  
 XX  
 PD 02-MAR-2000.  
 XX  
 PF 24-AUG-1999; 99WO-US19351.  
 XX  
 PR 24-AUG-1998; 98US-0097638.  
 PR 24-AUG-1998; 98US-0097659.  
 PR 09-SEP-1998; 98US-0099618.  
 PR 28-SEP-1998; 98US-0102092.  
 PR 25-NOV-1998; 98US-0109978.  
 PR 23-DEC-1998; 98US-0113645.  
 PR 23-DEC-1998; 98US-0113646.  
 PR 23-AUG-1999; 99US-0379246.  
 XX  
 PA (ALPH-) ALPHAGENE INC.  
 XX  
 PI Valenzuela D, Yuan O, Hoffman H, Hall J, Rapiejko P;  
 XX  
 DR WPI; 2000-224657/19.  
 DR P-PSDB; AAY95017.  
 XX  
 PT New secreted or transmembrane proteins and polynucleotides encoding  
 PT them, useful for treating neurodegenerative disorders, autoimmune  
 PT diseases and cancer -  
 XX  
 PS Claim 82; Page 333; 357pp; English.  
 XX  
 SQ Sequence 3098 BP; 749 A; 869 C; 815 G; 665 T; 0 other;

Query Match 46.8%; Score 343; DB 21; Length 3098;  
 Best Local Similarity 99.4%; Pred. No. 3.2e-121;  
 Matches 613; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 8 tgggtcaacctggcagtcagtcaggtcttggccaacaagagccacctctgggtggaggagg 67  
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 Db 277 tgggtcaacctggcagtcagtcaggtcttggccaacaagagccacctctgggtggaggagg 336

Qy 68 aggtctggcggatggagatctacctctccctgggagtgctggccctcggcacgttggtccc 127  
 |||  
 Db 337 aggtctggcggatggagatctacctctccctgggagtgctggccctcggcacgttggtccc 396

Qy 128 tgetggcgtgacctcactgccgtccattgcaaactcgctcaactggagggagttcagct 187  
 |||  
 Db 397 tgetggcgtgacctcactgccgtccattgcaaactcgctcaactggagggagttcagct 456

Qy 188 tcgttcagtcctcactgggctttgtggccctcgctgctgagcacactgcacacgctcacct 247  
 |||  
 Db 457 tcgttcagtcctcactgggctttgtggccctcgctgctgagcacactgcacacgctcacct 516

Qy 248 acggctggaccgcgccttcgaagaga-cgctacaagttctacctgcctcccaccttca 306  
 |||  
 Db 517 acggctggaccgcgccttcgaggagagccgctacaagttctacctgcctcccaccttca 576

Qy 307 cgctcacgctgctggtgccctgcgtcgctcatcctggccaaagccctgtttctcctgccct 366  
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 Db 577 cgctcacgctgctggtgccctgcgtcgctcatcctggccaaagccctgtttctcctgccct 636

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 Db 637 gcatcagccgcagactcgccaggatccggagaggtgggagagggagagcaccatcaagt 696

Qy 427 tcacgctgcccacagaccacgccctggccgagaagacgagccacgtatgaggtgcctgcc 486  
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 Db 697 tcacgctgcccacagaccacgccctggccgagaagacgagccacgtatgaggtgcctgcc 756

Qy 487 ctgggctctggaccccgggcacacgagggacggtgccctgagcccgttaggtttttctttt 546  
 |||  
 Db 757 ctgggctctggaccccgggcacacgagggacggtgccctgagcccgttaggtttttctttt 816

Qy 547 cttggtggtgcaaagtgggtataactgtgtgcaaataggaggtttgaggtccaaattcctg 606  
 |||  
 Db 817 cttggtggtgcaaagtgggtataactgtgtgcaaataggaggtttgaggtccaaattcctg 876

Qy 607 ggactcaaatgtatgca 623  
 |||  
 Db 877 ggactcaaatgtatgca 893